**Task Analysis 3: Sorting by Color**

**Assumptions:**
1. The child is 3 years old and of average ability. It is early in the school year.
2. There are 6 small counting bears to sort, 3 yellow and 3 red.
3. The child is sitting in a chair at a table. There is a student on each side completing the same task.
4. There is a sorting mat that is yellow on one half and red on the other half.
5. The materials are at the student’s space on the table. The bears are on top of the sorting mat to begin.
6. Other students are in different centers around the classroom.

**Expectations:**
1. The student will sort the 6 bears by color by matching them to the appropriate side of a sorting mat.
2. The student will raise his/her hand when the task is complete.

**SORTING BY COLOR:**

1. Watch the teacher model the task.
   a. Visual
      i. Figure-Ground: discriminate the teacher from environment
      ii. Visual Perception: knowing that the teacher is the teacher, and the materials are the materials
      iii. Eye-tracking: looking at the teacher and the materials throughout the model
      iv. Visual Discrimination:
         1. focusing on the teacher and materials
         2. ignoring other visual distractions
      v. Processing:
         1. organizing the teacher’s model in own brain to know what to do
         2. translating the model to an understanding in the brain
      vi. Attention:
         1. looking at the teacher
         2. attending to the model
   b. Auditory
      i. Processing:
         1. listening to the modeled instruction
         2. translating those instructions to a thought about what to do
      ii. Perception: ability to hear teacher’s sounds and understand that they hold meaning
      iii. Receptive Language: knowing the vocabulary associated with the teacher’s words
iv. Semantics: knowing what the teacher’s words mean
v. Comprehension: understanding all of the words together and what the final message means
vi. Discrimination: ability to listen to the teacher’s words and block out other noises in the classroom
vii. Memory: holding on to the information in the brain after teacher finishes model
viii. Decoding: breaking down the teacher’s sentences and words to understand the message
c. Cognitive
   i. Attention: ability to focus on task long enough to watch the model
   ii. Metacognition: thinking about steps necessary to begin process of sorting
   iii. Self-Monitor:
      1. awareness of the time to track the teacher is now
      2. ability to stay on the task of watching teacher and listening
      3. ability to control urge to touch materials
   iv. Executive Functioning: the student is able to organize the steps to sorting the bears
   v. Sequencing: the ability to know the steps to sort the bears
   vi. Memory: ability to retrieve information from watching the model
   vii. Planning: ability to begin to create a plan for completing the task independently
d. Social Skills
   i. Proximity to others:
      1. respecting personal space of students around the table
      2. not elbowing others in space
      3. keeping hands to self
   ii. Flexibility:
      1. waiting to begin task independently
      2. waiting to touch materials
      3. controlling frustration as needed
e. Tactile-Kinesthetic
   i. Spatial:
      1. awareness of sitting in chair
      2. awareness of elbows and body parts

2. Move bears to the side of the sorting mat.
   a. Visual
      i. Visual Perception: discriminating the bears from the mat
      ii. Visual Processing: knowing when the bears are on the side of the mat
      iii. Visual Eye-tracking: looking at the bears in order to move each one to the side of the mat
      iv. Visual Memory: remembering what the bears and the mat look like
      v. Visual Figure-ground: discriminate bears and mat from environment (nametags on table, or materials tray in middle of table)
      vi. Visual Directionality:
         1. knowing where the side of the mat is
         2. knowing when to stop moving the bears
      vii. Visual Discrimination: ability to focus on the bears and the mat while ignoring other visual stimuli in the classroom
      viii. Visual-spatial orientation: awareness of own space and materials on the table
   b. Tactile-Kinesthetic
i. Gross Motor: moving arm across body and mat to side of mat

ii. Fine Motor:
   1. grasping with thumb and fingers to pick up bears
   2. holding hand closed to keep hold of bears
   3. opening fingers to release bears

iii. Directionality:
   1. knowing to move arm sideways

iv. Laterality
   1. holding sorting mat with non-dominant hand
   2. using dominant hand to move bears to side
   3. ability to move arm across the midline as needed

v. Eye-hand coordination: ability to look at bears and move hands at the same time

vi. Spatial:
   1. awareness of sitting in chair
   2. awareness of elbows and body parts

vii. Figure-Ground: knowing which bears to move; knowing which mat is own mat

viii. Tactile Processing: ability to process information given through touching the bears (hard plastic)

c. Cognitive
i. Attention: ability to focus on task long enough to move all bears to side

ii. Metacognition: thinking about steps necessary to continue process of moving bears

iii. Self-Monitor:
   1. awareness of the time to move the bears is now
   2. ability to stay on task of moving bears to side of mat
   3. ability to control urge to touch other student’s materials

iv. Executive Functioning: the student is able to organize the steps to sorting the bears

v. Sequencing: the ability to know the steps to sort the bears

vi. Memory: ability to retrieve information from watching the model

vii. Planning: ability to continue to create a plan for finishing the sorting task

d. Social Skills
i. Proximity to others:
   1. respecting personal space of students around the table
   2. not bumping into others in space
   3. keeping hands to self

ii. Flexibility:
   1. waiting for help as needed
   2. controlling frustration as needed

iii. Self-Monitoring: showing perseverance

e. Auditory
i. Discrimination: ability to focus on task while other noises happen throughout the classroom

3. Pick up one bear.
   a. Visual
i. Visual Perception:
   1. discriminating one bear from group of bears
   2. knowing what the quantity of one bear looks like

   ii. Visual Eye-tracking: looking at the bear as he/she picks it up
iii. Visual Memory:
   1. remembering what the bears look like
   2. remembering the steps from the teacher’s model
iv. Visual Figure-ground: discriminate one bear from other bears and environmental stimuli
v. Visual Directionality: knowing the bear needs to be moved upward to pick it up
vi. Visual-spatial: looking for the bears and distinguishing one bear from rest of materials
vii. Visual Processing:
   1. organizing the teacher’s model in own brain to know what to do
   2. translating the model to an understanding of how to move the bears
   3. knowing when the bear has been lifted

b. Tactile-Kinesthetic
   i. Gross Motor: moving arm upward to pick up bear
   ii. Fine Motor:
      1. grasping with thumb and fingers to pick up bear
      2. holding hand closed to keep hold of bear
   iii. Directionality:
      1. knowing to move arm upward
   iv. Laterality
      1. Holding sorting mat with non-dominant hand
      2. Using dominant hand to move one bear upward to pick up
   v. Eye-hand coordination: ability to look at bear and move hand at the same time
   vi. Spatial:
      1. awareness of sitting in chair
      2. awareness of elbows and body parts
   vii. Figure-Ground:
      1. knowing which bear to move
      2. knowing which mat is own mat
viii. Tactile Processing: ability to process information given through touching the bear (hard plastic)

c. Cognitive
   i. Attention: ability to focus on task long enough to pick up one bear
   ii. Metacognition: thinking about steps necessary to continue process of picking up the bear
   iii. Self-Monitor:
      1. awareness of the time to pick up one bear is now
      2. ability to stay on task of choosing one bear
      3. ability to control urge to touch other student’s materials
      4. ability to choose and pick up just one bear at a time
   iv. Executive Functioning:
      1. the student is able to organize the steps to sorting the bears
      2. the student is able to choose one bear from rest
   v. Sequencing: the ability to know the steps to sort the bears
   vi. Memory:
      1. ability to retrieve information from watching the model
      2. ability to access prior knowledge about the quantity one
   vii. Planning: ability to continue to create a plan for finishing the sorting task

d. Social Skills
   i. Proximity to others:
1. respecting personal space of students around the table
2. not bumping into others in space
3. keeping hands to self

ii. Flexibility:
1. waiting for help as needed
2. controlling frustration

iii. Self-Monitoring:
1. showing perseverance
2. controlling speed of motions to avoid hitting self or others with bear
3. ability to pick up just one bear

e. Auditory
i. Discrimination: ability to focus on task while other noises happen throughout the classroom

4. Analyze the color of the bear.
   a. Visual
      i. Visual Perception: ability to perceive the color of the bear
      ii. Visual Eye-tracking: looking at the bear
      iii. Visual Memory:
          1. ability to apply a color to the bear from prior visual knowledge
          2. remembering the steps from the teacher’s model
      iv. Visual Figure-ground: ability to discriminate the bear from background
      v. Visual Discrimination: ability to see bear among other stimuli in the sight line
   vi. Visual-spatial: ability to recognize the bear within space
      vii. Visual Processing:
          1. organizing the teacher’s model in own brain to know what to do
          2. translating the model to an understanding of how to hold the bear
          3. ability to intake color as an attribute of the bear
   b. Tactile-Kinesthetic
      i. Gross Motor: holding arm up and still in front of face
      ii. Fine Motor: holding hand closed to keep hold of bear
      iii. Directionality:
          1. knowing to hold bear in front of face to look at it
      iv. Laterality
          1. Using dominant hand to hold bear up
      v. Eye-hand coordination: ability to look at bear and hold hand up at the same time
      vi. Spatial:
          1. awareness of sitting in chair
          2. awareness of elbows and body parts
          3. awareness of arm up and hand in front of face
      vii. Tactile Processing: ability to process information given through touching the bear (hard plastic)
   c. Cognitive
      i. Attention: ability to focus on task long enough to look at the bear
      ii. Metacognition: thinking about steps necessary to continue process of holding the bear
      iii. Self-Monitor:
          1. awareness of the time to look at the bear is now
          2. ability to stay on task of looking at the bear
3. ability to control urge to touch other student’s materials
4. ability to hold arm up without swinging it in other’s space

iv. Executive Functioning:
1. the student is able to organize the steps to sorting the bears

v. Sequencing: the ability to know the steps to sort the bears

vi. Memory:
1. ability to retrieve information from watching the model
2. ability to retrieve color information from prior knowledge
3. ability to access the storage of the information about color

vii. Transfer of Knowledge: the ability to assign a color to the bear

viii. Planning: ability to continue to create a plan for finishing the sorting task

d. Social Skills

i. Proximity to others:
1. respecting personal space of students around the table
2. not bumping into others in space
3. keeping hands to self
4. holding bear in front of own face

ii. Flexibility:
1. waiting for help as needed
2. controlling frustration

iii. Self-Monitoring:
1. showing perseverance
2. controlling speed of motions to avoid hitting self or others with bear

e. Auditory

i. Discrimination: ability to focus on task while other noises happen throughout the classroom

5. Place the bear on the correct side of the mat.

a. Visual

i. Visual Perception:
1. ability to perceive the color of the bear
2. ability to perceive the color of the mat

ii. Visual Eye-tracking:
1. looking at the bear
2. looking at the mat

iii. Visual Memory:
1. ability to apply a color to the bear and mat from prior visual knowledge
2. remembering the steps from the teacher’s model

iv. Visual Figure-ground:
1. ability to discriminate the bear from background
2. ability to discriminate mat from background

v. Visual Discrimination: ability to see bear and mat among other stimuli in the sight line

vi. Visual-spatial:
1. ability to recognize the bear within space
2. ability to recognize the mat within space

vii. Visual Processing:
1. organizing the teacher’s model in own brain to know what to do
2. translating the model to an understanding of how to match the bear to the mat
3. ability to intake color as an attribute of the bear and mat
4. ability to know when the bear and mat are the same color and match them

b. Tactile-Kinesthetic
   i. Gross Motor: moving arm toward table to set bear on mat
   ii. Fine Motor: releasing the fingers to set bear on mat
   iii. Directionality:
     1. knowing to move arm downward to meet the table and the mat
   iv. Laterality
     1. using dominant hand to set bear down
     2. holding mat in place with other hand
     3. ability to move arm across midline as needed
   v. Eye-hand coordination: ability to look at bear, look at the mat, and set the bear on the mat at the same time
   vi. Spatial:
     1. awareness of sitting in chair
     2. awareness of elbows and body parts
     3. awareness of arm moving downward
     4. awareness of when to stop moving arm
   vii. Tactile Processing: ability to process information given through touching the bear (hard plastic) and releasing the bear (knowing what an empty hand feels like)

C. Cognitive
   i. Attention: ability to focus on task long enough to match the bear and set it down for each of the six bears
   ii. Metacognition: thinking about steps necessary to continue process of matching the bear to the appropriate color on the mat
   iii. Self-Monitor:
     1. awareness of the time to match the bear to the mat is now
     2. ability to stay on task of setting down the bear
     3. ability to control urge to touch other student’s materials
     4. ability to move arm down without swinging it in other’s space
   iv. Executive Functioning:
     1. the student is able to organize the steps to sorting the bears
   v. Sequencing: the ability to know the steps to sort the bears
   vi. Memory:
     1. ability to retrieve information from watching the model
     2. ability to retrieve color information from prior knowledge
     3. ability to access the storage of the information about color
     4. ability to understand how to match
   vii. Transfer of Knowledge:
     1. the ability to assign a color to the mat
     2. the ability to match the colors of the bear and the mat
   viii. Planning: ability to continue to create a plan for finishing the sorting task
d. Social Skills
   i. Proximity to others:
     1. respecting personal space of students around the table
2. not bumping into others in space
3. keeping hands to self
4. holding bear in front of body as the arm moves toward table

ii. Flexibility:
1. waiting for help as needed
2. controlling frustration

iii. Self-Monitoring:
1. showing perseverance
2. controlling speed of motions to avoid hitting self or others with bear
3. controlling speed of motions to avoid slamming the bear on the table

e. Auditory
i. Discrimination: ability to focus on task while other noises happen throughout the classroom

6. Repeat for all 6 bears.

7. Raise hand when finished.
   a. Visual
      i. Visual Perception:
         1. ability to understand when all of the bears are sorted
      ii. Visual Processing:
         1. organizing the teacher’s model in own brain to know what to do (raise hand when finished)

b. Tactile-Kinesthetic
   i. Gross Motor: moving arm up to straighten for a raised hand
   ii. Directionality:
      1. knowing to move arm upward and stop when arm is extended
   iii. Spatial:
      1. awareness of sitting
      2. awareness of elbows and body parts
      3. awareness of arm moving upward
      4. awareness of when to stop moving arm at full extension

c. Cognitive
   i. Attention: ability to focus on task long enough to raise hand
   ii. Metacognition: thinking about steps necessary to finish process of sorting the bears
   iii. Self-Monitor:
      1. awareness of the time to raise hand is now
      2. awareness that that the task is complete
      3. ability to not touch the bears anymore
      4. ability to control urge to touch other student’s materials
      5. ability to move arm down without swinging it in other’s space
   iv. Executive Functioning:
      1. the student is able to organize the steps to completing the task

v. Sequencing:
   1. the ability to know the steps to complete the task
   2. awareness that the task is complete, so bears do not need to be moved anymore

vi. Memory:
1. ability to retrieve information from watching the model
2. ability to retrieve information about how to raise hand and wait quietly

d. Social Skills
   i. Proximity to others:
      1. respecting personal space of students around the table
      2. not bumping into others in space
      3. keeping hands to self
      4. holding extended arm in own space above head
   ii. Flexibility:
      1. waiting for teacher as needed
      2. controlling frustration
   iii. Self-Monitoring:
      1. waiting patiently and quietly

e. Auditory
   i. Discrimination: ability to focus on task of raising hand while other noises happen throughout the classroom